

**FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES**

**SMALL AIRCRAFT, ROTORCRAFT, GLIDERS
BALLOONS, AIRSHIPS, AND UAS**

BIWEEKLY 2023-10

04/24/2023 - 05/07/2023



Federal Aviation Administration
Continued Operational Safety Policy Section, AIR-141
P.O. Box 25082
Oklahoma City, OK 73125-0460

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SMALL AIRCRAFT

| AD No. | Information | Manufacturer | Applicability |
|--------|-------------|--------------|---------------|
|--------|-------------|--------------|---------------|

Information Key: E- Emergency; COR - Correction; R - Replaces, A- Affects

Biweekly 2023-01

| | | | |
|------------|--|-----------------------------|--|
| 2022-26-01 | | GE Aviation Czech s.r.o. | M601D-11,M601E-11,M601E-11A,M601E-11AS,M601E-11S,M601F,H75-100,H75-200,H80,H80-100,H80-200,H85-100,H85-200 |
| 2022-27-03 | | Leonardo S.p.a. | AB139,AW139 |
| 2022-27-08 | | Bell Textron Canada Limited | 407 |

Biweekly 2023-02

| | | | |
|------------|--|--------------------|--|
| 2022-27-09 | | Airbus Helicopters | EC130T2 |
| 2023-01-02 | | Leonardo S.p.a. | A109,A109A,A109A II,A109C,A109E,A109K2,A109S,AW109SP |

Biweekly 2023-03

| | | | |
|------------|--------------|----------------------------------|---|
| 2023-01-07 | | GE Aviation Czech s.r.o. | H75-100,H75-200,H80,H80-100,H80-200,H85-100,H85-200 |
| 2023-01-11 | | Safran Helicopter Engines S.A. | Makila 1A,Makila 1A1 |
| 2023-01-12 | | Safran Helicopter Engines S.A. | Arriel 1C,Arriel 1C1,Arriel 1C2 |
| 2023-02-03 | R 2022-01-09 | Stemme AG | Stemme S 10-VT,Stemme S 12 |
| 2023-02-04 | | Mooney International Corporation | M20C,M20D,M20E,M20F,M20G |

Biweekly 2023-04

| | | | |
|------------|--|---|--|
| 2023-01-04 | | Airbus Helicopters | AS350B,AS350BA,AS350B1,AS350B2,AS350B3,AS350D,AS355E,AS355F,AS355F1,AS355F2,AS355N,AS355NP |
| 2023-01-07 | | GE Aviation Czech s.r.o. | H75-100,H75-200,H80,H80-100,H80-200,H85-100,H85-200 |
| 2023-01-08 | | Continental Aerospace Technologies GmbH | TAE 125-02-99,TAE 125-02-114 |
| 2023-01-10 | | GE Aviation Czech s.r.o. | M601E-11,M601E-11A,M601E-11AS,M601E-11S,M601F |
| 2023-02-12 | | Continental Aerospace Technologies Inc. | GTSIO-520-C,GTSIO-520-D,GTSIO-520-E,GTSIO-520-F,GTSIO-520-H,GTSIO-520-K,GTSIO-520-L,GTSIO-520-M,GTSIO-520-N,IO-470-A,IO-470-C,IO-470-D,IO-470-E,IO-470-F,IO-470-G,IO-470-H,IO-470-J,IO-470-K,IO-470-L,IO-470-LO,IO-470-M,IO-470-N,IO-470-P,IO-470-R,IO-470-S,IO-470-T,IO-470-U,IO-470-V,IO-470-VO,IO-520-A,IO-520-B,IO-520-BA,IO-520-BB,IO-520-C,IO-520-CB,IO-520-D,IO-520-E,IO-520-F,IO-520-J,IO-520-K,IO-520-L,IO-520-M,IO-520-MB,IO-520-N,IO-520-NB,IO-520-P,IO-550-A,IO-550-B,IO-550-C,IO-550-D,IO-550-E,IO-550-F,IO-550-G,IO-550-L,IO-550-N,IO-550-P,IO-550-R,IOF-550-B,IOF-550-C,IOF-550-D,IOF-550-E,IOF-550-F,IOF-550-L,IOF-550-P,IOF-550-R,LIO-470-A,LIO-520-P,LTSIO-520-AE,O-470-A,O-470-E,O-470-G,O-470-G-CI,O-470-H,O-470-J,O-470-K,O-470-K-CI,O-470-L,O-470-L-CI,O-470-M,O-470-M-CI,O-470-N,O-470-P,O-470-R,O-470-S,O-470-T,O-470-U,TSIO-470-B,TSIO-470-C, |

SMALL AIRCRAFT

| AD No. | Information | Manufacturer | Applicability |
|---|--------------|---|--|
| Information Key: E- Emergency; COR - Correction; R - Replaces, A- Affects | | | |
| | | | TSIO-470-D,TSIO-520-A,TSIO-520-AE,TSIO-520-AF,TSIO-520-B,TSIO-520-BB,TSIO-520-BE,TSIO-520-C,TSIO-520-CE,TSIO-520-D,TSIO-520-DB,TSIO-520-E,TSIO-520-EB,TSIO-520-G,TSIO-520-H,TSIO-520-J,TSIO-520-JB,TSIO-520-K,TSIO-520-KB,TSIO-520-L,TSIO-520-LB,TSIO-520-M,TSIO-520-N,TSIO-520-NB,TSIO-520-P,TSIO-520-R,TSIO-520-T,TSIO-520-U,TSIO-520-UB,TSIO-520-VB,TSIO-520-WB,TSIO-550-A,TSIO-550-B,TSIO-550-C,TSIO-550-E,TSIO-550-G,TSIO-550-K,TSIOF-550-D,TSIOF-550-J,TSIOF-550-K,TSIOL-550-A,TSIOL-550-C |
| 2023-03-01 | | Airbus Helicopters Deutschland GmbH | BO-105A,BO-105C,BO-105S,BO-105LS A-1,BO-105LS A-3,MBB-BK 117 A-1,MBB-BK 117 A-3,MBB-BK 117 A-4,MBB-BK 117 B-1,MBB-BK 117 B-2,MBB-BK 117 C-1,MBB-BK 117 C-2,MBB-BK 117 D-2 |
| 2023-03-10 | | Schempp-Hirth Flugzeugbau GmbH | Duo-Discus,Duo Discus T |
| Biweekly 2023-05 | | | |
| 2023-01-07 | | GE Aviation Czech s.r.o. | H75-100,H75-200,H80,H80-100,H80-200,H85-100,H85-200 |
| 2023-02-17 | | Textron Aviation Inc. | 210N,210R,P210N,P210R,T210N,T210R,177,177A,177B,177RG,F177RG |
| 2023-03-02 | | Pratt & Whitney Canada Corp. | PT6E-67XP |
| 2023-03-03 | | Leonardo S.p.a. | AB139,AW139 |
| 2023-03-12 | R 2004-04-09 | Pratt & Whitney Canada Corp. | JT15D-1,JT15D-1A,JT15D-1B |
| 2023-03-13 | | Airbus Helicopters | AS355E,AS355F,AS355F1,AS355F2,AS355N |
| 2023-04-08 | | Continental Aerospace Technologies, Inc. (Continental®) | GTSIO-520-C,GTSIO-520-D,GTSIO-520-H,GTSIO-520-K,GTSIO-520-L,GTSIO-520-M,GTSIO-520-N,GTSIO-520-S,IO-360-A,IO-360-AB,IO-360-AF,IO-360-C,IO-360-CB,IO-360-D,IO-360-DB,IO-360-E,IO-360-ES,IO-360-G,IO-360-GB,IO-360-H,IO-360-HB,IO-360-J,IO-360-JB,IO-360-K,IO-360-KB,IO-470-D,IO-470-E,IO-470-G,IO-470-H,IO-470-J,IO-470-K,IO-470-L,IO-470-M,IO-470-N,IO-470-P,IO-470-R,IO-470-S,IO-470-T,IO-470-U,IO-470-V,IO-470-VO,IO-520-A,IO-520-B,IO-520-BA,IO-520-BB,IO-520-C,IO-520-CB,IO-520-D,IO-520-E,IO-520-F,IO-520-J,IO-520-K,IO-520-L,IO-520-M,IO-520-MB,IO-550-A,IO-550-B,IO-550-C,IO-550-D,IO-550-E,IO-550-F,IO-550-G,IO-550-L,IO-550-N,IO-550-P,IO-550-R,LTSIO-360-E,LTSIO-360-EB,LTSIO-360-KB,LTSIO-360-RB,LTSIO-520-AE,O-470-A,O-470-B,O-470-E,O-470-G,O-470-H,O-470-J,O-470-K,O-470-L,O-470-M,O-470-N,O-470-R,O-470-S,O-470-T,O-470-U,TSIO-360-A,TSIO-360-AB,TSIO-360-B,TSIO-360-BB,TSIO-360-C,TSIO-360-CB,TSIO-360-D,TSIO-360-DB, |

SMALL AIRCRAFT

| AD No. | Information | Manufacturer | Applicability |
|--------|-------------|--------------|---------------|
|--------|-------------|--------------|---------------|

Information Key: E- Emergency; COR - Correction; R - Replaces, A- Affects

TSIO-360-E,TSIO-360-EB,TSIO-360-G,TSIO-360-GB,TSIO-360-H,TSIO-360-HB,TSIO-360-JB,TSIO-360-KB,TSIO-360-LB,TSIO-360-MB,TSIO-360-RB,TSIO-360-SB,TSIO-520-A,TSIO-520-AE,TSIO-520-AF,TSIO-520-B,TSIO-520-BB,TSIO-520-BE,TSIO-520-C,TSIO-520-CE,TSIO-520-D,TSIO-520-DB,TSIO-520-E,TSIO-520-EB,TSIO-520-G,TSIO-520-H,TSIO-520-J,TSIO-520-JB,TSIO-520-K,TSIO-520-KB,TSIO-520-L,TSIO-520-LB,TSIO-520-M,TSIO-520-NB,TSIO-520-P,TSIO-520-R,TSIO-520-T,TSIO-520-UB,TSIO-520-VB,TSIO-520-WB,TSIO-550-A,TSIO-550-B,TSIO-550-C,TSIO-550-E,TSIO-550-G,TSIO-550-K,TSIO-550-N,TSIOF-550-K,TSIOL-550-A,TSIOL-550-B,TSIOL-550-C

Biweekly 2023-06

| | | | |
|------------|-----------------|--|-------------------------|
| 2023-03-14 | | Schempp-Hirth Flugzeugbau GmbH | Duo-Discus,Duo Discus T |
| 2023-03-22 | R 2015-09-04 R1 | DG Flugzeugbau GmbH,Schempp-Hirth Flugzeugbau GmbH | DG-1000T,Duo Discus T |
| 2023-04-20 | | Cirrus Design Corporation | SF50 |

Biweekly 2023-07

| | | | |
|------------|--------------|---|---|
| 2023-05-03 | R 2022-14-14 | Alexander Schleicher GmbH & Co. Segelflugzeugbau | ASW -15,ASW-15B |
| 2023-05-09 | | Airbus Helicopters Deutschland GmbH | EC135P3,EC135T3,MBB-BK 117 D-2,MBB-BK 117 D-3 |
| 2023-05-16 | R 2023-04-08 | Continental Aerospace Technologies Inc. | GTSIO-520-C,GTSIO-520-D,GTSIO-520-H,GTSIO-520-K,GTSIO-520-L,GTSIO-520-M,GTSIO-520-N,GTSIO-520-S,IO-360-A,IO-360-AB,IO-360-AF,IO-360-C,IO-360-CB,IO-360-D,IO-360-DB,IO-360-E,IO-360-ES,IO-360-G,IO-360-GB,IO-360-H,IO-360-HB,IO-360-J,IO-360-JB,IO-360-K,IO-360-KB,IO-470-A,IO-470-C,IO-470-D,IO-470-E,IO-470-F,IO-470-G,IO-470-H,IO-470-J,IO-470-K,IO-470-L,IO-470-LO,IO-470-M,IO-470-N,IO-470-P,IO-470-R,IO-470-S,IO-470-T,IO-470-U,IO-470-V,IO-470-VO,IO-520-A,IO-520-B,IO-520-BA,IO-520-BB,IO-520-C,IO-520-CB,IO-520-D,IO-520-E,IO-520-F,IO-520-J,IO-520-K,IO-520-L,IO-520-M,IO-520-MB,IO-550-A,IO-550-B,IO-550-C,IO-550-D,IO-550-E,IO-550-F,IO-550-G,IO-550-L,IO-550-N,IO-550-P,IO-550-R,LTSIO-360-E,LTSIO-360-EB,LTSIO-360-KB,LTSIO-360-RB,LTSIO-520-AE,O-470-A,O-470-B,O-470-E,O-470-G,O-470-H,O-470-J,O-470-K,O-470-L,O-470-M,O-470-N,O-470-R,O-470-S,O-470-T,O-470-U,TSIO-360-A,TSIO-360-AB,TSIO-360-B,TSIO-360-BB,TSIO-360-C,TSIO-360-CB,TSIO-360-D,TSIO-360-DB,TSIO-360-E,TSIO-360-EB,TSIO-360-F,TSIO-360-FB,TSIO-360-G,TSIO-360- |

SMALL AIRCRAFT

| AD No. | Information | Manufacturer | Applicability |
|--------|-------------|--------------|---------------|
|--------|-------------|--------------|---------------|

Information Key: E- Emergency; COR - Correction; R - Replaces, A- Affects

GB,TSIO-360-H,TSIO-360-HB,TSIO-360-JB,TSIO-360-KB,TSIO-360-LB,TSIO-360-MB,TSIO-360-RB,TSIO-360-SB,TSIO-520-A,TSIO-520-AE,TSIO-520-AF,TSIO-520-B,TSIO-520-BB,TSIO-520-BE,TSIO-520-C,TSIO-520-CE,TSIO-520-D,TSIO-520-DB,TSIO-520-E,TSIO-520-EB,TSIO-520-G,TSIO-520-H,TSIO-520-J,TSIO-520-JB,TSIO-520-K,TSIO-520-KB,TSIO-520-L,TSIO-520-LB,TSIO-520-M,TSIO-520-NB,TSIO-520-P,TSIO-520-R,TSIO-520-T,TSIO-520-UB,TSIO-520-VB,TSIO-520-WB,TSIO-550-A,TSIO-550-B,TSIO-550-C,TSIO-550-E,TSIO-550-G,TSIO-550-K,TSIO-550-N,TSIOF-550-K,TSIOL-550-A,TSIOL-550-B,TSIOL-550-C

| | | | |
|-------------------------|---|------------------------------|---|
| 2023-06-11 | | Viking Air Limited | DHC-2 Mk.I |
| Biweekly 2023-08 | | | |
| 2023-07-51 | E | Leonardo S.p.a. | AB139,AW139 |
| Biweekly 2023-09 | | | |
| 2023-06-05 | | Bell Textron Canada Limited | 206A,206A-1 (OH-58A),206B,206B-1,206L,206L-1,206L-3,206L-4 PC-12/47E |
| 2023-07-08 | | Pilatus Aircraft Ltd. | |
| Biweekly 2023-10 | | | |
| 2023-06-14 | | Pratt & Whitney Canada Corp. | PW308A,PW308C |
| 2023-07-03 | | Leonardo S.p.a. | AB412,AB412 EP |

PART 39-AIRWORTHINESS DIRECTIVES

The authority citation for part 39 continues to read as follows:

[Amended]

The FAA amends §39.13 by adding the following new airworthiness directive:

2023-06-14Pratt & Whitney Canada Corporation: Amendment 39-22400; Docket No. FAA-2023-0022; Project Identifier MCAI-2022-00564-E.

(a) Effective Date

This airworthiness directive (AD) is effective May 30, 2023.

(b) Affected ADs

None.

(c) Applicability

This AD applies to:

- (1) Pratt & Whitney Canada Corporation (P&WC) PW308A model turbofan engines with build specification (BS) BS935 and BS1249, serial numbers PCE-CE0180 and prior; and
- (2) P&WC PW308C model turbofan engines with BS1047 and BS1238, serial numbers PCE-CF0967 and prior.

(d) Subject

Joint Aircraft Service Component (JASC) Code 7240, Turbine Engine Combustion Section.

(e) Unsafe Condition

This AD was prompted by a manufacturer's design review which identified that the combustion chamber outer case to rear compressor case flange bolts low cycle fatigue life was inadequate, and that those flange bolts may develop cracks resulting in flange bolt fracture. The FAA is issuing this AD to prevent cracking and fracture of the flange bolts. The unsafe condition, if not addressed, may result in flange bolt fracture, flange separation or case rupture, damage to the engine, and damage to the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Except as specified in paragraphs (h) and (i) of this AD: Perform all required actions within the compliance times specified in, and in accordance with, Transport Canada AD CF-2022-22.

(h) Exceptions to Transport Canada AD CF-2022-22

Where Transport Canada AD CF-2022-22 requires compliance from its effective date, this AD requires using the effective date of this AD.

(i) No Reporting Requirement

Although the service information referenced in Transport Canada AD CF-2022-22 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in . In accordance with , send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k) of this AD or email to: .

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Additional Information

For more information about this AD, contact Barbara Caufield, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238-7146; email: .

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under and .

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Transport Canada AD CF-2022-22, dated April 22, 2022.

(ii) [Reserved]

(3) For Transport Canada AD CF-2022-22, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario K1A 0N5, Canada; phone: (888) 663-3639; email: . You may find this material on the Transport Canada website at tc.canada.ca/en/aviation.

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: , or go to: .

Issued on March 24, 2023.

Christina Underwood,

Acting Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2023-08624 Filed 4-24-23; 8:45 am]

BILLING CODE 4910-13-P

PART 39-AIRWORTHINESS DIRECTIVES

The authority citation for part 39 continues to read as follows:

[Amended]

The FAA amends §39.13 by adding the following new airworthiness directive:

2023-07-03 Leonardo S.p.a.: Amendment 39-22405; Docket No. FAA-2023-0665; Project Identifier MCAI-2022-00625-R.

(a) Effective Date

This airworthiness directive (AD) is effective May 10, 2023.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Leonardo S.p.a. Model AB412 and AB412 EP helicopters, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code: 5302, Rotorcraft Tail Boom.

(e) Unsafe Condition

This AD was prompted by a report of a fatigue crack in a left-hand (LH) fin spar cap. The FAA is issuing this AD to detect a crack, a loose or missing rivet, damage, or distortion. The unsafe condition, if not addressed, could result in stress concentrations at the edge of the rivet hole, possibly resulting in reduced structural integrity of the fin spar and subsequent loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Except as specified in paragraphs (h) and (i) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency AD 2022-0084, dated May 11, 2022 (EASA AD 2022-0084).

(h) Exceptions to EASA AD 2022-0084

(1) Where EASA AD 2022–0084 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where EASA AD 2022–0084 refers to flight hours, this AD requires using hours time-in-service.

(3) Where the service information referenced in paragraph (1) of EASA AD 2022–0084 specifies to “inspect both flanges of the left hand fin spar cap between F.S. 50 and F.S. 71 using 10x magnifying glass and a bright light for cracks, loose rivets, and other damage;” for this AD, replace that text with, “inspect both flanges of the left hand fin spar cap between F.S. 50 and F.S. 71 using a 10X or higher power magnifying glass and a flashlight for a crack, a loose or missing rivet, and other damage, which may be indicated by fretting around the rivet.”

(4) Instead of complying with paragraph (2) of EASA AD 2022–0084, comply with the following; “During any inspection as required by paragraph (1) of EASA AD 2022–0084, for this AD, if there is a crack, a loose or missing rivet, other damage, or distortion, before further flight, accomplish the corrective action in accordance with a method approved by the Manager, General Aviation & Rotorcraft Section, International Validation Branch, FAA; or EASA; or Leonardo S.p.a. Helicopters' Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.”

(5) This AD does not adopt the “Remarks” section of EASA AD 2022–0084.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2022–0084 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in . In accordance with , send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: .

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

For more information about this AD, contact Gregory Koenig, Aerospace Engineer, Airframe & Administrative Services Section, Chicago ACO Branch, Compliance & Airworthiness Division, FAA, 2300 E Devon Ave., Des Plaines, IL 60018; telephone (847) 294–7127; email .

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under and .

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2022–0084, dated May 11, 2022.

(ii) [Reserved]

(3) For EASA AD 2022–0084, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ; internet: *easa.europa.eu*. You may find this material on the EASA website at *ad.easa.europa.eu*.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N–321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222–5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: , or go to: .

Issued on April 3, 2023.

Christina Underwood,

Acting Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2023–08629 Filed 4–24–23; 8:45 am]

BILLING CODE 4910–13–P